

BEFORE THE

DEC - 2 2002

**Federal Communications Commission**FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

WASHINGTON, D. C. 20554

**ORIGINAL**

In the Matter of	)	
	)	
Amendment of Section 73.202(b),	)	MM Docket No. 00-69
Table of Allotments,	)	RM-9850
FM Broadcast Stations,	)	RM-9945
(Cheboygan, Rogers City, Bear Lake,	)	RM-9946
Bellaire, Rapid River, Manistique,	)	
Ludington, Walhalla and Onaway,	)	
Michigan)	)	

To Assistant Chief, Audio Division, Media Bureau

**SUPPLEMENTAL COMMENTS**

Northern Radio Network Corporation ("NRN") herein responds to the "Request for Supplemental Information" released in the above-captioned proceeding on October 18, 2002 (DA 02-2722) (hereinafter "*Request*")

In Paragraph 3 of the *Request*, the Assistant Chief of the Audio Division notes the contention of Fort Bend Broadcasting Company ("Fort Bend") that from the reference coordinates it has specified, a tower of 299 meters above average terrain would provide line-of-sight coverage of Bellaire, Michigan. The Assistant Chief continues, "At this juncture, it is necessary to make a dispositive determination as to the maximum tower height that would receive Federal Aviation Administration approval."

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File # 00-69

In response to the *Request*, NRN respectfully notes (a) the question of the maximum tower height the FAA would approve at the site in question is one of only several dispositive issues that would have to be resolved in Fort Bend's favor before its multi-part proposal could be adopted and (b) an antenna height 299 meters above average terrain is not sufficient to overcome the terrain obstructions between the proposed reference site and Bellaire.

In their oppositions to Fort Bend's petition for reconsideration, NRN, Northern Radio of Michigan, Inc. and Lake Broadcasting, Inc. highlighted the numerous insurmountable substantive and procedural obstacles to grant of Fort Bend's reconsideration petition. NRN will not burden the record by reiterating the several fatal flaws in Fort Bend's plan. It is sufficient to state that, under the circumstances present, not only is Fort Bend's Bellaire allotment proposal defective, but so are its Bear Lake and Rapid River proposals.

With respect to line-of-sight coverage of Bellaire, the attached Engineering Statement of Munn-Reese, Inc. demonstrates that to achieve an antenna height 299 meters above average terrain from the site in question, the *center* of radiation would have to be 265.9 meters (872 feet) above ground level (*i.e.*, 503 meters above mean sea level). Thus a tower well in excess of 900 feet above ground level would be required.<sup>4</sup>

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<sup>4</sup> Fort Bend stated at the reconsideration stage of this proceeding that the Bellaire tower would need to be 280.2 meters (919.3 feet), assuming the use of an eight-bay antenna. *See* Fort Bend Petition for Reconsideration, Engineering Statement at p.1. But at an earlier stage, Fort Bend said a tower 375 meters (1230.3 feet) in height would be required. Fort Bend Reply Comments (filed September 15, 2000), Engineering Statement at pp 3-4.

Significantly, even with such an extraordinarily tall tower, the terrain obstructions in issue would not be surmounted. Munn-Reese, Inc. calculates that it would require a center of radiation 465.9 meters (1,529 feet) above ground level to achieve minimal line-of-sight coverage of Bellaire.

NRN anticipates Fort Bend will not be able to demonstrate the FAA would approve a 900-foot plus tower at the site proposed. NRN is even more confident FAA clearance of a tower taller than 1500 feet at that site cannot be achieved

WHEREFORE, IN LIGHT OF **ALL** CIRCUMSTANCES PRESENT, Fort Bend's petition for reconsideration should be DENIED

**NORTHERN RADIO NETWORK CORPORATION**

By: 

Matthew H. McCormick,  
Its Counsel

Reddy, Begley & McCormick, **LLP**  
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December 2, 2002

## ENGINEERING STATEMENT

The firm of Munn-Reese, Inc. has been retained to evaluate the potential for terrain obstructions between the reference coordinates for the proposed Channel 260C1 allotment<sup>1</sup> at Bellaire, MI and the reference coordinates for the city of license.<sup>2</sup>

Figure 1 shows a terrain profile study between these two locations using an antenna height equivalent to 299 meters height above average terrain (HAAT). This places the center of radiation (COR) at 503 meters above mean sea level (AMSL). Inspection of this profile will show a significant terrain obstruction near the city of license. Given a reported site elevation of 237.1 meters (778 feet) **AMSL**, the COR would be 265.9 meters (872 feet) above ground level (AGL). Since this represents the center of the antenna, the tower would need additional height to accommodate the complete antenna and tower lighting. A full Class C1 facility would operate with an effective radiated power (ERP) of 100 kW, which would require a large antenna, a large transmitter, or both.

Figure 2 shows a revised terrain profile with the antenna COR raised to provide minimal line of sight clearance to the Bellaire community reference coordinates. This requires the antenna be mounted with its center of radiation 703 meters **AMSL**. This would be 465.9 meters (1,529 feet) AGL. At this height, which is 499 meters HAAT, the ERP could be reduced to 25.5 kW to achieve full Class C1 equivalency. Thus, a smaller antenna could be used, but additional tower height would still be required above the antenna COR for even a small antenna and the tower lighting.

Although the Commission has asked the proponent to supply evidence that a tower providing 299 meters HAAT could be authorized at the reference point, it appears even this height is insufficient. Thus, the burden of proof is even greater than that suggested by the Commission.

## CERTIFICATION

I hereby certify, subject to penalties for perjury, that the contents of this Engineering Statement are true and accurate to the best of my knowledge and belief.

December 2, 2002

**Munn-Reese, Inc.**

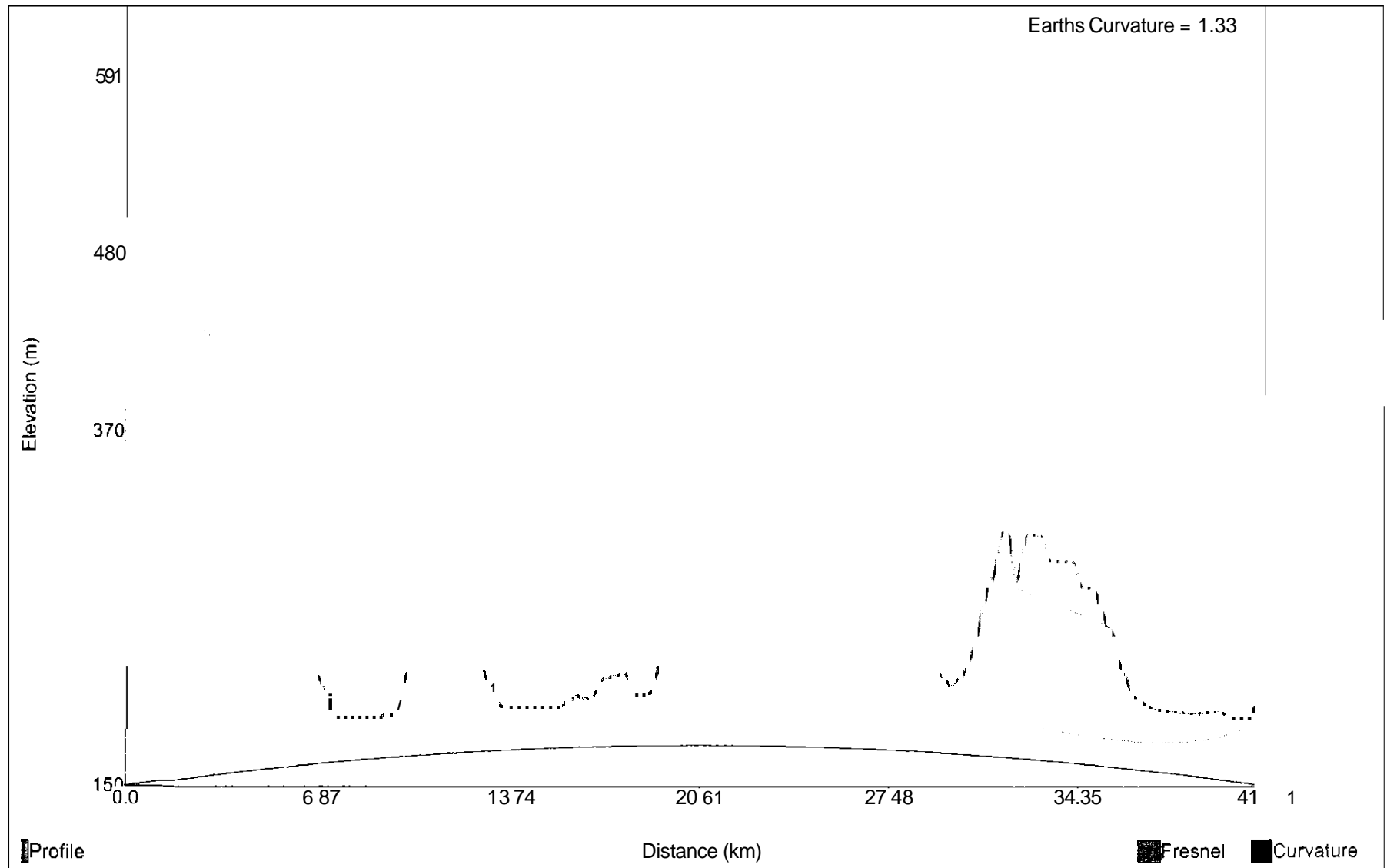
PO Box 220  
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By \_\_\_\_\_  
Wayne S. Reese, President

<sup>1</sup> 45° 20' 48" NL 85° 07' 46" WL  
<sup>2</sup> 44° 58' 49" NL 85° 12' 40" WL

**MUNN-REESE, INC.**  
Broadcast Engineering Consultants  
Coldwater MI 49036

Figure 1 - 503 meters AMSL (299 meters HAAT) to Bellaire, MI Reference Coordinates



Starting Latitude 45-20-48 N  
Starting Longitude:085-07-46 W

End Latitude.44-58-49 N  
End Longitude:085-12-40 W

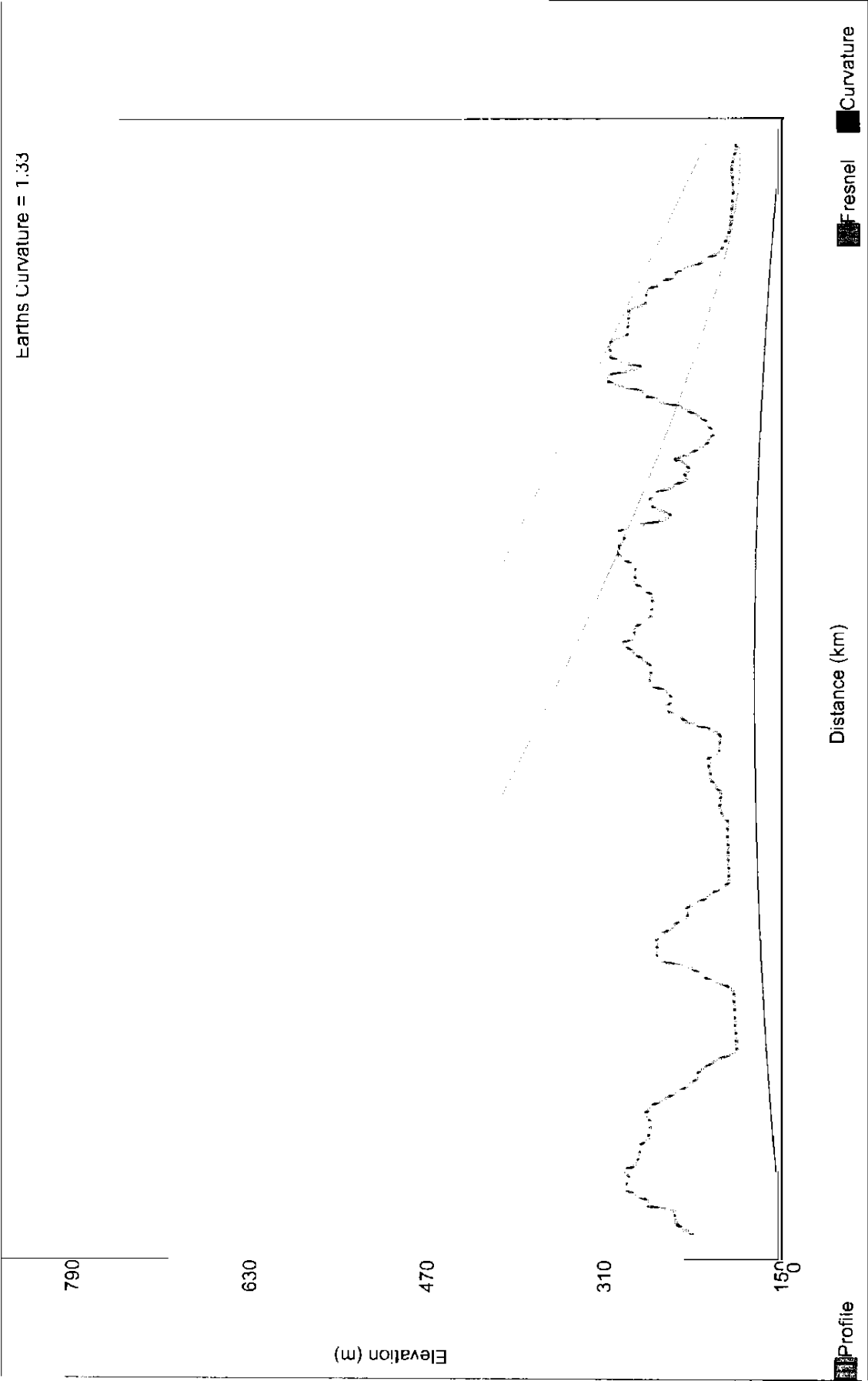
Distance 41.221394191 km  
Bearing: 188.990 deg

Transmitter Height (AG) = 265.6 m  
Receiver Height (AG) = 10.0 m

Transmitter Elevation = 237.4 m  
Receiver Elevation = 198.0 m

Frequency = 99.9 MHz  
Fresnel Zone. 0.6

Figure 2 - 703 meters AMSL (499 meters HAAT) to Bellaire, MI Reference Coordinates



Starting Latitude: 45-20-48 N	End Latitude 44-58-49 N	Distance: 41.221394191 km
Starting Longitude: 085-07-46 W	End Longitude: 085-12-40 W	Bearing: 188.990 deg

Transmitter Height (AG) = 465.6 m	Transmitter Elevation = 237.4 m	Frequency = 99.9 MHz
Receiver Height (AG) = 10.0 m	Receiver Elevation = 198.0 m	Fresnel Zone: 0.6

## **CERTIFICATE OF SERVICE**

I, Janice M Rosnick, hereby certify that on this 2<sup>nd</sup> day of December, 2002, copies of the foregoing **SLJPPLEMENTAL COMMENTS** were hand delivered or mailed, first class, postage prepaid, to the following

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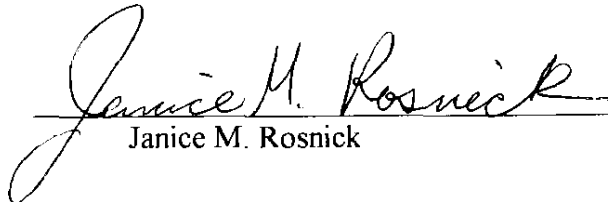
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